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Conference Abstract

Expanding the Ocean Biogeographic Information System (OBIS) beyond species occurrences

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Abstract

Data providers in the Ocean Biogeographic Information System (OBIS) network are not just recording species occurrences, they are also recording sampling methodology details and

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measuring environmental and biotic variables. In order to make OBIS an effective data sharing platform, it needs to be able to store and exchange these data in such a way that they can easily be interpreted by end users, as well as by the tools which will be created to search, analyze and visualize the integrated data.

OBIS makes use of Darwin Core Archives (DwC-A) for exchanging data between data providers, regional and thematic nodes, and the central OBIS database. However, due to limitations of the DwC-A schema, this data format is currently not suitable for storing sampling event details or sample related measurements, as well as biotic measurements.

In order to overcome this problem, OBIS has created a new extension type based on the existing MeasurementOrFacts extension (De Pooter et al. 2017). This ExtendedMeasurementOrFacts extension adds an occurrenceID field, which allows linking biotic measurements to occurrences, even if the archive contains an event table and sample level measurements or facts. In addition, identifiers for measurement types, values and units can now be added in the new measurementTypeID, measurementValueID and measurementUnitID fields. These identifiers link to vocabularies such as the BODC NERC Vocabulary, and greatly improve the interoperability and reusability of the OBIS datasets.

Keywords

Darwin Core Archive, Event Core, sampling event data, species occurrence, environmental data, telemetry data, oceanographic data

Presenting author

Pieter Provoost

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